HFA-305 Div. of Dockets Mgt.

Approval Date: OCT 2 8 2004

# FREEDOM OF INFORMATION SUMMARY SUPPLEMENTAL NEW ANIMAL DRUG APPLICATION

# NADA 140-992

REVALOR-H, REVALOR-IH, and REVALOR-200 Trenbolone Acetate and Estradiol

This supplement provides for addition to the labeling of the statements "A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal." to the warning section and "Do not use in veal calves. Effectiveness and animal safety in veal calves have not been established." immediately following the indications.

Sponsored by:

3

Intervet, Inc. 29160 Intervet Lane P.O. Box 318 Millsboro, DE 19966

# FREEDOM OF INFORMATION SUMMARY

# REVALOR-H and REVALOR-IH Ear Implant for Heifers Fed in Confinement for Slaughter

# REVALOR-200 Ear Implant for Steers and Heifers Fed in Confinement for Slaughter

# 1. GENERAL INFORMATION:

a. File Number: NADA 140-992

b. Sponsor: Intervet, Inc.

29160 Intervet Lane

P.O. Box 318

Millsboro, DE 19966

Drug Labeler Code: 057926

c. Established Names: Trenbolone Acetate and Estradiol

d. Propriety Names: REVALOR-H

REVALOR-IH REVALOR-200

e. Dosage Form: Implantation (ear implant) as per 21 CFR 522.2477

f. How Supplied:

REVALOR-H: Each shipping container contains 4 x 1000 dose packages. Each darton contains 10 x 100 dose packages. Each box contains 10 x 10 cartridge implants. Each cartridge contains 1 implant dose. Each dose consists of 140 mg trenbolone acetate and 14 mg estradiol.

5 - 5 - 5 5 - 20 - 20 1 2 25 5 5 1 2 25 5

REVALOR-IH: Each shipping container contains 4 x 1000 dose packages. Each carton contains 10 x 100 dose packages. Each box contains 10 x 10 cartridge implants. Each cartridge contains 1 implant dose. Each dose consists of 80 mg trenbolone acetate and 8 mg estradiol.

REVALOR-200: Each shipping container contains 4 x 1000 dose packages. Each carton contains 10 x 100 dose packages. Each box contains 10 x 10 cartridge implants. Each cartridge contains 1 implant dose. Each dose consists of 200 mg trenbolone acetate and 20 mg estradiol.

g. How Dispensed:

OTC

h. Amount of Active Ingredients:

REVALOR-H:

140 mg trenbolone acetate.

14 mg estradiol.

REVALOR-IH:

80 mg trenbolone acetate.

8 mg estradiol.

REVALOR-200:

200 mg trenbolone acetate.

20 mg estradiol.

i. Route of Administration:

Subcutaneous implantation on the posterior aspect of

the middle one-third of the ear by means of an

implant gun.

j. Species/Class:

REVALOR-H and REVALOR-IH: Heifers fed in

confinement for slaughter.

REVALOR-200: Steers and heifers fed in

confinement for slaughter.

k. Recommended Dosage:

REVALOR-H: One implant containing 140 mg

trenbolone acetate and 14 mg/estradiol.

REVALOR-IH: One implant containing 80 mg

trenbolone acetate and 8 mg estradiol.

REVALOR-200: One implant containing 200 mg

trenbolone acetate and 20 mg estradiol

1. Pharmacological Category:

Steroid hormones

m. Indications:

<u>REVALOR-H</u>: Increases rate of weight gain and improves feed efficiency in a slow-release delivery

system.

REVALOR-IH: Increases rate of weight gain in a

slow-release delivery system.

<u>REVALOR-200</u>: This product contains trenbolone acetate and estradiol in a slow-release delivery system which increases rate of weight gain and

improves feed efficiency in steers fed in

confinement for slaughter.

n. Effect of Supplement:

This supplement provides for addition to the

labeling of the statements "A withdrawal period has

not been established for this product in preruminating calves. Do not use in calves to be processed for veal." to the warning section and "Do not use in veal calves. Effectiveness and animal safety in veal calves have not been established." immediately following the label indications.

# 2. DRUG EFFECTIVENESS:

No new effectiveness data are required for the approval of this supplement. The products' effectiveness has been established in the Freedom of Information (FOI) Summaries for the parent new animal drug application for REVALOR-H, REVALOR-IH, and REVALOR-200 (NADA 140992).

# 3. TARGET ANIMAL SAFETY:

No new target animal safety data are required for the approval of this supplement. The products' target animal safety has been established in the Freedom of Information (FOI)

Summaries for the parent new animal drug application for REVALOR-H, REVALOR-IH, and REVALOR-200 (NADA 140992).

# 4. HUMAN SAFETY:

No new human food safety data are required for the approval of this supplement. The products' human food safety has been established in the Freedom of Information (FOI) Summaries for the parent new animal drug application for REVALOR-H, REVALOR-IH, and REVALOR-200 (NADA 140992).

# 5. AGENCY CONCLUSIONS:

The information submitted in support of this NADA satisfy the requirements of section 512 of the Federal Food, Drug, and Cosmetic Act and 21 CFR Part 514 of the implementing regulations providing for the addition to the labeling of the statements "A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal." to the warning section and "Do not use in veal calves. Effectiveness and animal safety in veal calves have not been established." immediately following the indications. The labeling is modified to conform to agency policy (69 FR 135 pages 42443-42444 dated July 15, 2004, and 69 FR 68 page 18594 dated April 8, 2004.)

The Center for Veterinary Medicine has concluded that, for these products, adequate directions for use by the layperson have been provided and the products will have over-the-counter (OTC) status. Label directions are accompanied by pictorial diagrams and detailed instruction in plain language. The drugs are not controlled substances. The products' status remains OTC. The labeling is adequate for the intended use and has sufficient warnings/statements to prevent illegal use in veal calves.

This approval does not qualify for marketing exclusivity under section 512(c)(2)(F)(iii) of the Federal Food, Drug, and Cosmetic Act.

Under the Center's supplemental approval policy (21 CFR 514.106(b)(2)), this is a Category II change. The approval of this change is not expected to have any adverse effect on the safety or effectiveness of this new animal drug. Accordingly, this approval did not require a reevaluation of the safety and effectiveness data in the parent application.

No patent information was submitted by the sponsor with this application.

# 6. ATTACHMENTS:

Facsimile Labeling is attached as indicated below:

REVALOR-H Package Insert

**REVALOR-H Box Label** 

**REVALOR-H Carton Label** 

REVALOR-H Shipping Container Label

REVALOR-IH Package Insert

**REVALOR-IH Box Label** 

**REVALOR-IH Carton Label** 

**REVALOR-IH Shipping Container Label** 

REVALOR-200 Package Insert

REVALOR-200 Box Label

REVALOR-200 Carton Label

REVALOR-200 Shipping Container Label



# WARNING

Not to be used in animals intended for subsequent breeding, or in dairy animats. For Animal Treatment Only. Not for Use in Humans, Implant pellets in the ear only. Any other location is in violation of Federal Law. Do not attempt ealvage of implemed site for human or animal food.

A withdrawel period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for yeal.

# STORAGE CONDITIONS

Store in a refrigerator (2-8° C; 36-47° F) and protect from sunlight. Use before the expiration date printed on the box and on the cartridge.

# **PACKAGE QUANTITIES**

Box of 10 x 10 cartridge implants.

Made in Austria by: Intervet GesmbH

Distributed by: intervet inc. Milisboro, DE 19966

781000-C



NADA # 140-992, Approved by FDA

# Revalor - H

(trenbolone acetate and estradiol)

# FOR HEIFERS FED IN CONFINEMENT **FOR SLAUGHTER**

# DESCRIPTION

Revalor\*-H is an implant containing 140 mg of trenbolone acetate and 14 mg estradiol. Each implant consists of 7 small yellow pellets. Ten implants are provided in a cartridge.

Manufactured by a non-sterilizing process.

# INDICATIONS

Increases rate of weight gain and improves feed efficiency in a slow-release delivery system.

Do not use in yeal calves. Effectiveness and animal safety in veal calves have not been established.

# NOTE

Studies have demonstrated that the administration of Revalor\*-H can result in decreased marbling scores when compared to non-implanted heifers.

## DOSAGE

# Dosage Form:

One implant containing 140 mg trenbolone acetate and 14 mg estradiol is administered to each animal. The 7 small pellets which make up the dosage of Revalor\*-H are contained in one division of the multiple dose cartridge. Ten doses are in each cartridge. The cartridge is designed to be used with a special implant gun.

# Route of Administration:

The implant is placed under the skin on the posterior aspect of the ear by means of a special implanter available from intervet inc.



With the animal suitably restrained, the skin on the outer surface of the ear should be cleaned. The implant is then administered by the method shown in the diagram below.

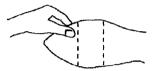


Fig. 1 - Ear of Bovine Ready for Implantation

# SITE OF IMPLANTATION

After appropriately restraining the animal to allow access to the ear, cleanse the skin at the implant needle puncture site. It is subcutaneous between the skin and cartilage on the back side of the ear and below the midline of the ear. The implant must not be placed closer to the head than the edge of the cartilage ring farthest from the head. The location of insertion of the needle is a point toward the tip of the ear and at least a needle length away from the intended deposition site. Care should be taken to avoid injuring the major blood vessels or cartilage of the ear.

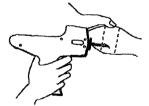
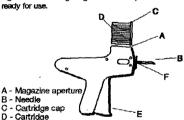


Fig. 2 - Rear View of the Bovine Ear Showing the Site for Insertion of the Implanter Needle.

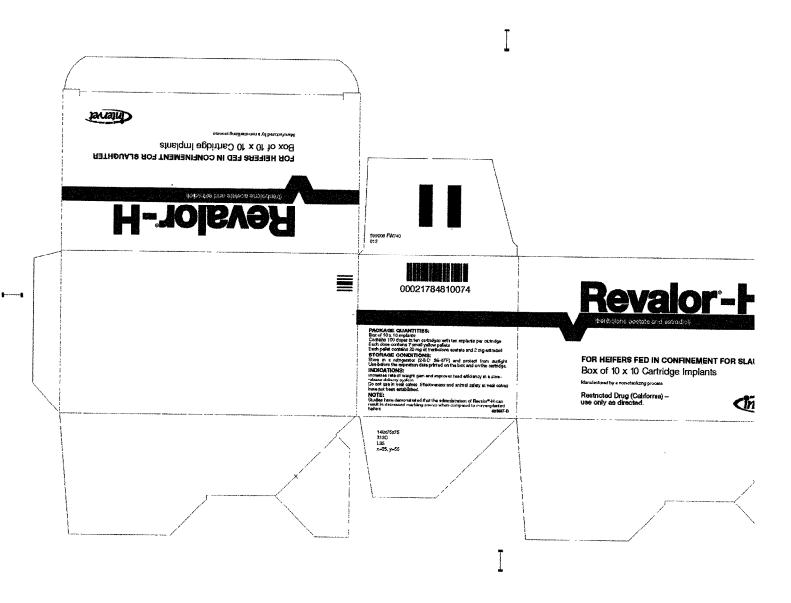
# METHOD OF USE

- 1. Do not remove the cap of the cartridge containing the implants.
- 2. Place the cartridge (D) with the capped end to the front into slot at the top of the implanter magazine marked (A) on the diagram.
- 3. Gently push the cartridge into the slot until it clicks into place.
- 4. The implenter is then ready for use.
- 5. Take the ear of the animal firmly with the free hand in the manner shown in Fig. 1. Then insert the needle into the subcutaneous tissue at the point indicated in Fig. 2.
- 6. After inserting the needle to its full extent, squeeze the trigger (E) gradually. Allow the pellets of the implant to be deposited in a single row
- 7. Withdraw the implanter. This will advance the cartridge one groove in the magazine and the next implant is now ready for use.
- 8. When all the implants have been administered. the cartridge will discharge out the bottom of the magazine and may be replaced by a new one.
- 9. To change the needle, loosen the needle locking nut labeled (F) in Fig. 3 and replace the needle. Tighten the nut finger tight and the implanter is reacty for use.



- B Needle
- D Cartridge
- E Trigger F Needle locking nut

Fig. 3 - Diagram of the Implanter and Cartridge





# Revalor-H





(trenbolone acetate and estradiol)

# FOR HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

NET CONTENTS

Box of 10 x 100 dose packages

Manfactured by a non-sterilizing process

STORAGE CONDITIONS:

Store in a retrigerator (2-8° C; 36-47° F) and protect from sunlight. Use before the expiration date printed below and on the cartridge.

WARNING:

WARNING:
Not to be used in animals intended for subsequent breeding, or in dairy animals.
For Animal Treatment Only, Not for Use in Humans. Implant pellets in the ear
only. Any other location is in violation of Federal Law. Do not attempt salvage of
implanted site for human or animal food.
A withdrawal period has not been established for this product in pre-ruminating
calves. Do not use in calves to be processed for yeal.

781007-C

509005 CW240 011

Made in Austria by: intervet GesmbH Distributed by: Intervet Inc. Millsboro, DE 19966 LOT EXP





30021784810075

Revalor-H

(trenbolone acetate and estradio)

# FOR HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

NET CONTENTS

4 x 1000 dose packages

Manfactured by a non-sterilizing process

STORAGE CONDITIONS:
Store in a refrigorator (2-8° C; 36-47° F) and protect from eurilight.
Use before the expiration date printed below and on the cartridge.

Use before the expression date primes between on the country.

WARNING:
Not to be used in animals intended for subsequent breeding, or in dairy animals. For Animal freatment Only, Not for Use in Humans, Implant pellets in the ear only. Any other location is in violation of Federal Law. Do not attempt astrage of implanted site for human or animal food.

A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for yeal.

**Cintervet** 

781008-C

509006 ZW240 011

Made in Austria by: Intervet GesmbH Distributed by: Intervet Inc. Millsboro, DE 19966 LOT EXP





# WARNING

Not to be used in animals intended for subsequent breeding, or in dairy animals. For Animal Treatment Only. Not for Use in Humans. Implant pellets in the ear only. Any other location is in violation of Federal Law. Do not attempt salvage of implanted site for human or animal food.

A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in caives to be processed for veal.

# STORAGE CONDITIONS

Store in a refrigerator (2-8° C; 36-47° F) and protect from sunlight. Use before the expiration date printed on the box and on the cartridge.

# **PACKAGE QUANTITIES**

Box of 10 x 10 cartridge implants.

Made in Austria by. Intervet GesmbH

Distributed by: Intervet Inc. Milisboro, DE 19966

481420-C



NADA # 140-992, Approved by FDA

# Revalor - IH

ftrenbolone acetate and estradiol)

# FOR HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

# DESCRIPTION

Revalor\*-IH is an implant containing 80 mg of trenbolone acetate and 8 mg estradiol. Each implant consists of 4 small yellow pellets. Ten implants are provided in a cartridge.

Manufactured by a non-sterilizing process.

# INDICATIONS

Increases rate of weight gain in a slow-release delivery

Do not use in veal calves. Effectiveness and animal safety in veal calves have not been established.

Studies have demonstrated that the administration of Revalor\*-IH can result in decreased marbling scores when compared to non-implanted heifers.

# DOSAGE

# Doeage Form:

One implant containing 80 mg trenbolone acetate and 8 mg estradiol is administered to each animal. The 4 pellets which make up the dosage of Revalor®-IH are contained in one division of the multiple dose cartridge. Ten closes are in each certridge. The cartridge is designed to be used with a special implant gun

# Route of Administration:

The implant is placed under the skin on the posterior aspect of the ear by means of a special implanter available from Intervet Inc.



With the animal suitably restrained, the skin on the outer surface of the ear should be cleaned. The implant is then administered by the method shown in the diagram below.

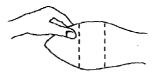


Fig. 1 - Ear of Bovine Ready for Implantation

# SITE OF IMPLANTATION

After appropriately restraining the animal to allow access to the ear, cleanse the skin at the implant needle puncture site. It is subcutaneous between the skin and cartilage on the back side of the ear and below the midline of the ear. The implant must not be placed closer to the head than the edge of the cartilage ring farthest from the head. The location of insertion of the needle is a point toward the tip of the ear and at least a needle length away from the intended deposition site. Care should be taken to avoid injuring the major blood vessels or cartilage of the ear.



Fig. 2 - Rear View of the Bovine Ear Showing the Site for Insertion of the Implanter Needle.

# METHOD OF USE

- 1. Do not remove the cap of the cartridge containing the implants.
- 2. Place the cartridge (D) with the capped end to the front into slot at the top of the implanter magazine marked (A) on the diagram.
- 3. Gently push the cartridge into the slot until it clicks into place.
- 4. The implanter is then ready for use.
- 5. Take the ear of the animal firmly with the free hand in the manner shown in Fig. 1. Then insert the needle into the subcutaneous tissue at the point indicated in Fig. 2.
- 6. After inserting the needle to its full extent, squeeze the trigger (E) gradually. Allow the pellets of the implant to be deposited in a single row.
- 7. Withdraw the implanter. This will advance the cartridge one groove in the magazine and the next implant is now ready for use.
- 8. When all the implants have been administered. the cartridge will discharge out the bottom of the magazine and may be replaced by a new one.
- 9. To change the needle, loosen the needle locking nut labeled (F) in Fig. 3 and replace the needle. Tighten the nut finger tight and the implanter is ready

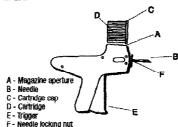
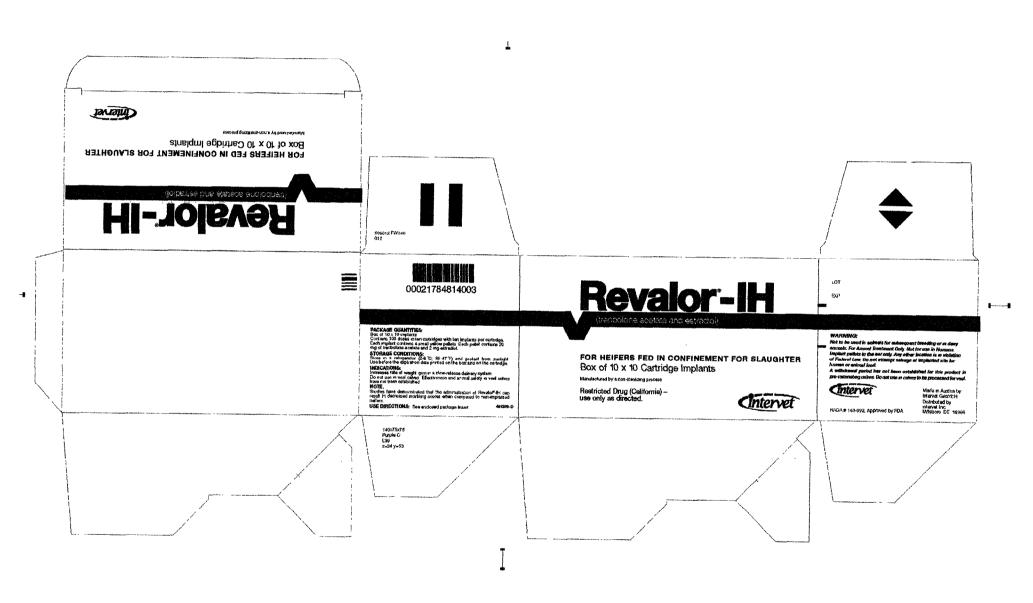


Fig. 3 - Diagram of the Implanter and Cartridge





# Revalor-IH





# FOR HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

NET CONTENTS

Box of 10 x 100 dose packages

Manfactured by a non-sterilizing process

STORAGE CONDITIONS: Store in a refrigerator (2-8" C; 36-47" F) and protect from sunlight. Use before the expiration date printed below and on the cartridge.

# WARNING:

WARNING:
Not to be used in animals intended for subsequent breeding, or in dairy animals.
For Animal Treatment Only, Not for Use in Humans, Implant peliots in the ear
only. Any other location is in violation of Federal Law, Do not attempt salvage of
implanted afte for human or animal food.
A withdrawal period has not been established for this product in pre-ruminating
calves. Do not use in calves to be processed for weal.

481430-C

509009 CW240 011

Made in Austria by: Intervet GesmbH Distributed by: Intervet Inc. Millsboro, DE 19966 LOT EXP



NADA # 140-992, Approved by FDA



# Revalor-IH

# FOR HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

NET CONTENTS

4 x 1000 dose packages

Manfactured by a non-sterilizing process

STORAGE CONDITIONS: Store in a refrigerator (2-6" C; 36-47" F) and protect from sunlight. Use before the expiration date printed below and on the cartridge.

Use before the expiration date primed below and on the desirence.

WARNING:
Not to be used in animals intended for subsequent breeding, or in dairy animals. For Animal Treatment Only. Not for Use in Humans. Implant pellets in the ear only. Any other location is in violation of Federal Law. Do not attempt salvage of implanted site for human or animal food.

A withdrawai period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for yeal.

**Cintervet** 

781400-C

509010 ZW240 011

Made in Austria by: Intervet GesmbH Distributed by: Intervet Inc. Millaboro, DE 19966 LOT EXP

Intervet NADA # 140-992, Approved by FDA



# Revalor<sup>®</sup>-200

ftrenbolone acetate and estradioi)

# WARNING

Not to be used in animals intended for subsequent breeding, or in dairy animals. For Animal Treatment Only. Not for Use in Humans, Implant peliets in the ear only. Any other location is in violation of Federal Law. Do not attempt salvage of implanted site for human or animal food.

A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for yeal.

# STORAGE CONDITIONS

Store in a refrigerator (2-8° C; 36-47° F) and protect from sunlight. Use before the expiration date printed on the box and on the cartridge.

# **PACKAGE QUANTITIES**

Box of 10 x 10 cartridge implants.

Made in Austria by: Intervet GesmbH

Distributed by: Intervet Inc. Millsboro, DE 19966

482200-B



NADA # 140-992, Approved by FDA

509000 GW240 012

# FOR STEERS AND HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

DESCRIPTION
Revalor\*-200 (trenbolone acetate, CAS Registry Number 10161-34-9, and estradiol, CAS Registry Number 50-28-2) is an implant containing 200 mg of trenbolone acetate and 20 mg estradiol. Each inplant consists of 10 small yellow pellets. Ten implants are provided in a cartridge.

Manufactured by a non-sterilizing process.

# INDICATIONS FOR USE

This product contains trenbolone acetate and estradiol in a slow-release delivery system which increases rate of weight gain and improves feed efficiency in steers and heifers fed in confinement for slaughter.

Do not use in veal calves. Effectiveness and animal safety in veal calves have not been established.

Revalor\*-200 is not better for increased average daily gain or improved feed efficiency than Revalor\*-H (140 mg transolone acetate/14 mg estradiol) in heiters fed in confinement for staughter. Studies have demonstrated that the administration of

Revalor®-200 can result in decreased marbling scores when compared to non-implanted steers and heifers.

# DOSAGE

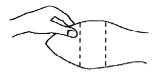
## Dosage Form:

One implant containing 200 mg trenbolone acetate and 20 mg estradiol is administered to each animal. The 10 pellets which make up the dosage of Revalor\*-200 are contained in one division of the multiple dose cartridge. Ten doses are in each cartridge. The cartridge is designed to be used with a special implant gun.

# Route of Administration:

The implant is placed under the skin on the posterior aspect of the ear by means of a special implanter available from intervet inc.

With the animal suitably restrained, the skin on the outer surface of the ear should be cleaned. The implant is then administered by the method shown in the diagram below.



Flg. 1 - Ear of Bovine Ready for Implantation

# SITE OF IMPLANTATION

After appropriately restraining the animal to allow access to the ear, cleanse the skin at the implant needle puncture site. It is subcutaneous between the skin and cartilage on the back side of the ear and below the midline of the ear The implant must not be placed closer to the head than the edge of the cartilage ring farthest from the head. The location of insertion of the needle is a point toward the tip of the ear and at least a needle length away from the intended deposition site. Care should be taken to avoid injuring the major blood vessels or cartilage of the ear.

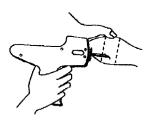


Fig. 2 - Rear View of the Bovine Ear Showing the Site for Insertion of the Implanter Needle.

# METHOD OF USE

- 1. Do not remove the cap of the cartridge containing the implants.
- 2. Place the cartridge (D) (with the capped end to the front) into slot at the top of the implanter magazine (marked A on the diagram).
- 3. Gently push the cartridge into the slot until it clicks into place
- 4. The implanter is then ready for use.
- 5. Take the ear of the animal firmly with the free hand (in the manner shown in Fig. 1). Then insert the needle into the subcutaneous tissue at the point indicated
- 6. After inserting the needle to its full extent, squeeze the trigger (E) gradually Allow the pellets of the implant to be deposited in a single mw
- 7. Withdraw the implanter. This will advance the cartridge one groove in the magazine and the next implant is now ready for use.
- 8. When all the implants have been administered, the cartridge will fall out of the bottom of the magazine and may be replaced by a new one.
- 9. To change the needle, loosen the needle locking nut (labeled F in Fig. 3) and replace the needle. Tighten the nut finger tight and the implanter is ready for use

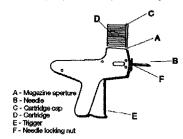
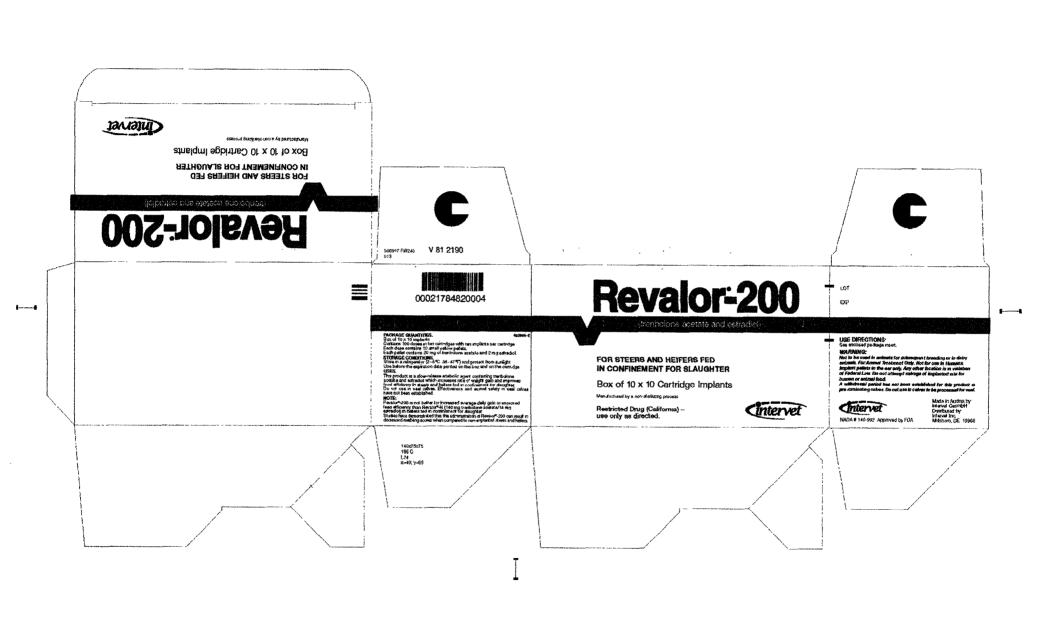


Fig 3 - Diagram of the Implanter and Cartridge









50021784820009

(tronbolone acetate and estradial)

# FOR STEERS AND HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

NET CONTENTS

Box of 10 x 100 dose packages

Manfactured by a non-sterilizing process

STORAGE CONDITIONS: Store in a retrigerator (2-8° C; 36-47° F) and protect from sunlight. Use before the expiration date printed below and on the cartridge.

# WARNING:

warning:

Not to be used in animals intended for subsequent breeding, or in dairy animals.

For Animal Treatment Only, Not for Use in Humans, Implant pellets in the ear only.

Any other location is in violation of Federal Law. Do not attempt salvage of

implanted site for human or animal food.

A withdrawal period has not been established for this product in pre-runnating calves.

Do not use in calves to be processed for yeal.

482030-D

508998 CW240 012

Made in Austria by: Intervet Gesmbili Distributed by:

intervet inc. Millsboro, DE 19966

LOT

EXP



# Revalor-200



trenbolone acetate and estraction

# FOR STEERS AND HEIFERS FED IN CONFINEMENT FOR SLAUGHTER

**NET CONTENTS** 

4 x 1000 dose packages

Manfactured by a non-sterilizing process

STORAGE CONDITIONS:

Store in a retrigerator (2-8° C; 36-47° F) end protect from sunlight.

Use before the expiration date printed below and on the cartridge.

WARNING:

WARNING:
Not to be used in animals intended for subsequent breeding, or in dairy animals.
For Animal Treatment Only. Not for Use in Humans, Implant pellets in the ear only.
Any other location is in violation of Federal Law. Do not attempt salvage of
implanted sto for human or animal food.
A withdrawal period has not been established for this product in pre-ruminating calves.

Do not use in calves to be processed for veal.

782000-D

508999 ZW240 012

Made in Austria by: Intervet GesmbH

Distributed by Intervet Inc. Millsboro, DE 19966 LOT

ΕXΡ

